

Notice of Allowability**Application No.**

10/079,733

Examiner

Hoa V. Le

Applicant(s)

BECKMANN ET AL.

Art Unit

1752

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 12 May 2004.
2. ☒ The allowed claim(s) is/are (87-88), (37-47), (54-59), (54-58), (64-66) and (69-86).
3. ☒ The drawings filed on 17 April 2002 are accepted by the Examiner.
4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☐ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 6. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).**
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☒ Information Disclosure Statements (PTO-1449 or PTO/SB/08),
Paper No./Mail Date 06 May 2002
4. ☐ Examiner's Comment Regarding Requirement for Deposit
of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☐ Interview Summary (PTO-413),
Paper No./Mail Date _____.
7. ☐ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____.

Hoa V. Le
Primary Examiner
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This is in response to Paper filed on 12 May 2004.

- I. Applicants state on the record that no new matter is added in the specification from the amendments being acknowledged.
- II. The non-elected invention of method claims (broadest independent claim 60 and 61 (being corrected from 59)-63), (48-53) and (67-68) has been canceled on the record. It is noted that claims 59 is a material claim.
- III. Applicants elect the invention of material claims (broadest independent claim 87 and 88), (37-47), (54-59), (64-66) and (69-(86 being corrected from 76)) without traverse on the record being acknowledged. The broadest claim 87 has been independently considered and searched. Others are integrally considered and searched as set up in the invention of the material claims by applicants, set forth in the Office action mailed on 12 March 2004 and elected without traverse on 12 May 2004.
- IV. A. (1) It is allowed to claim by a functional, characteristic, conditional, physical and/or chemical property or condition of a material and /or process. (2) However, a claimed functional, characteristic, conditional, physical and/or chemical property or condition of a material and/or process carries with a risk (In re In re Schreiber, 44 USPQ2d 1432). It is reasonable that the Office is not supplied, provided or equipped with a sufficient facility to carry out a test for the

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functional, characteristic, physical and/or chemical properties as claimed in accordance with the authority stated in *In re Best*, 195 USPQ 430; *Ex parte Maizel*, 27 USPQ2d 1662 or *Ex parte Phillip*, 28 USPQ2d 1302. The language "material which expand" or the like is considered as the functional and characteristic property of a material and searched as appeared.

B. *In re Schreiber*, 44 USPQ2d 1429 states that "A patent applicant is free to recite features of an apparatus either structurally or functionally. See *In re Swinehart*...169 USPQ 226, 228... Yet, choosing to define an element functionally, i.e., by what it does, carries with a risk."

V. Applicants' prior art submission filed on 06 May 2002 has been considered.

VI. The following is an examiner's statement of reasons for allowance:

1. Van Dine et al (5,573,866) as submitted disclose, teach and suggest to one having ordinary skill in the art that there is a valve (figure 1 in between "16" and "14" from top to bottom and left to right) on a liquid line containing methanol fuel to an anode active fuel cell but fail to disclose, teach and suggest of an active controlling in an operation.

2. Wilkinson et al (6,096,448) disclose, teach and suggest to one having ordinary skill in the art of an active controlling valve to actively regulate and control methanol fuel to an anode active fuel cell in an operation (figure 3-6).

3, Saito (US 2002/0182474), Patentees in Abstracts of Japanese Patent No. JP402040865A and JP405290867A disclose, teach and suggest to one having ordinary skill in the art of an expandable material to actively regulate and control a fluid flow in a fuel cell but

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fail to disclose, teach or suggest actively regulating and controlling methanol fuel to an anode active fuel cell in an operation.

4. Welles (6,289,888) discloses, teaches and suggests to one having ordinary skill in the art of an expandable material to actively regulate and control a methanol in a mainly heat generating device with a minor possible electrical current in a fuel cell.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

VII. Note: (1) Applicants may early and timely rewrite the mistakenly canceled material claim 59 as a new claim 89.

(2) Applicants may early and timely rewrite the canceled method claims on the record as new claims 90, 91... (1) to contain all of the limitations of the allowable material claims with at least those in the broadest independent claim 87 or (2) with a statement that the added method claims contain or read within the all of the limitations of claims 87 and other allowable material claims.

Such early and timely amendment will be entered.

VIII. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hoa V. Le whose telephone number is 571-272-1332.

The examiner can normally be reached from 6:30 AM to 4:00 PM on Monday though Thursday

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and about the same time of most Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Cynthia Kelly can be reached on 571-272-1526

Applicants may file a paper by (1) fax with a central facsimile receiving number 703-872-9306,

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Hoa V. Le
Primary Examiner
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HVL
11 July 2004

HOA VAN LE
PRIMARY EXAMINER

